



[SUNCOR MACKAY RIVER] MR UNIT 900 HEATING MEDIUM SYSTEM

Customer: PTRHTF20196	System Information	Sample Information
SUNCOR ENERGY MACKAY RIVER PROJECT DOCK M FORT MCMURRAY, AB T9H 4W1 Canada Attn: Nicolas Zambrano Tel: (403)519-7266	System Volume: 15000 ltr Bulk Operating Temp: 482F / 250C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO LT Make:	Lab No: 02515351 Analyst: Terry Veenstra Sample Date: 09/24/22 Received Date: 10/07/22 Completed: 10/20/22 Terry Veenstra terry.veenstra@HFSinclair.com

Recommendation: Although 90% distillation temperature is elevated (likely due to heavier ends from fluid degradation), the remaining sample results are consistent with Calflo LT.

Comments:

Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/24/22	10/07/22	1.0y	low point drain	342 / 172	11.2	8.3	0.07	0.045	609 / 321	640 / 338	787 / 419	46.35
Baseline Data				349 / 176		7.52	0.1		604 / 318	640 / 338	734 / 390	47.0



